

REMARKS

This is intended as a full and complete response to the Office Action dated June 24, 2009, having a shortened statutory period for response set to expire on September 24, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-2, 4-13, and 30-38 are pending in the application. Claims 1-2, 4-13, and 30-38 remain pending following entry of this response. Applicants submit that the amendments do not introduce new matter.

Further, Applicants are not conceding in this application that those amended (or canceled) claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the claimed subject matter. Applicants respectfully reserve the right to pursue these (pre-amended or canceled claims) and other claims in one or more continuations and/or divisional patent applications.

Claim Rejections - 35 U.S.C. § 103

Claims 1-2, 4-6, 8, 9, 30, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over *A case for Grid Computing On Virtual Machines, Fortes et al* (hereinafter *Fortes*) in view of *Camble et al.*, Pub No. 2003/0135580 (hereinafter *Camble*).

Claims 7, 10, 11-13, 31-35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Fortes* in view of *Camble* further in view of *Lumelsky et al.*, Patent No. 6,460,082 (hereinafter *Lumelsky*).

The Examiner takes the position that *Fortes* teaches all the elements of claim 1, with the exception of “providing on-demand resources to the first logical partition based upon the usage of the partition resources of the first logical partition and a usage of the grid resources, wherein the on-demand resources are available to the system, and access to the on-demand resources is controlled by a manufacturer of the system.” However, the Examiner argues that this limitation is taught by *Camble*, and that it would

have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine these two references.

Applicants respectfully traverse this rejection.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2141. Establishing a *prima facie* case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The factual inquiries are as follows:

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;
- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art.

Respectfully, Applicants submit that the Examiner has not properly characterized the teachings of the references and/or the claims at issue. Accordingly, a *prima facie* case of obviousness has not been established.

The Examiner argues that *Fortes* discloses "providing grid resources from the grid to the first logical partition based upon usage of the partition resource of the first logical partition." *Fortes* discloses that "some of the resources used by a classic VM (e.g. memory and disk sizes) can be customized dynamically at instantiation time." *Fortes* at Sec. 2.2, Resource Control. Furthermore, *Fortes* discloses that "It is also possible to implement mechanisms to limit the amount of resources utilized by a VM at run-time by implementing scheduling policies at the level of the virtual machine monitor." *Fortes* at Sec. 2.2, Resource Control. Additionally, as noted by the Examiner, *Fortes* discloses "the components of a virtual machine session are distributed across three different logical entities: *image servers*, which provide the capability for archiving static VM states; *computation servers* (or VM hosts), which provide the capability of instantiating dynamic VM images (or VM guests); and *data servers*, which provide the capability of storing user data." *Fortes* at Sec. 3.1, Second Para. (Emphasis in the Original). Finally, *Fortes* discloses "the nodes of a virtual computational grid support, in

addition to virtual machine monitors, a set of tools that limit the share of resources that the virtual machines are permitted to use, grid middleware such a Globus (and SSH) for instantiating machines, and resource monitoring software such as RPS.” *Fortes* at Sec. 4, Second Para. Thus, *Fortes* describes a configuration for instantiating virtual machines on a computer system with each virtual machine assigned its own set of resources. Applicants assume, *arguendo*, that the virtual machine described in *Fortes* is analogous to the logical partition described in claim 1, and that the virtual machine resources (i.e. the number of cores, the amount of memory, etc. dedicated to the virtual machine) are analogous to the partition resources as described in claim 1, as is described in Paragraph [0040] of the original specification.

However, in contrast to the disclosure in *Fortes*, claim 1 also includes “providing grid resources from the grid to the logical partition based upon usage of the partition resources.” That is, in addition to the *partition resources* that are assigned to a given logical partition, claim 1 describes *grid resources* that may be provided to the logical partition based upon usage of the partition resources. Thus, while *Fortes* discloses the concept of virtual machines or partitions, each having their own *partition resources*, *Fortes* fails to disclose providing *additional grid resources* to the logical partitions. Therefore, Applicants respectfully submit that the combination of *Fortes* in view of *Camble* fails to disclose all the elements of claim 1. As such, Applicants respectfully request the rejection be withdrawn and claim 1 allowed.

The rejection to claims 2, 4-9 and 38 incorporate the rejection to independent claim 1 over *Fortes* in view of *Camble*. As stated above, the rejection to independent claims 1 is believed to be overcome. Accordingly, the rejection to claims 2, 4-6, and 8-9 is also believed to be overcome. Therefore, the withdrawal of the rejection to these claims is respectfully requested.

Regarding claim 30, Applicants again submit that *Fortes* does not disclose grid resources of a grid in addition to partition resources of a logical partition. Thus, neither *Fortes* nor *Camble* teach “providing grid resources to the logical partition based upon usage of partition resources of the logical partition, wherein the grid resources comprise one or more resources from each of a plurality of logical partitions of the system, the

grid resources being available for use by each partition of the single computer". Similarly, neither *Fortes* nor *Camble* teach "configuring the single computer to provide the grid resources to the logical partition based upon usage of the partition resources of the logical partition", as recited in claim 36. Therefore, claims 30 and 36 are believed to be allowable, and allowance of the claims is respectfully requested.

Claims 31-35 and 38 depend from claims 30 and 36, respectively. As claims 30 and 36 are believed to be allowable, claims 31-35 and 37 are believed to be allowable as well. Applicants respectfully request the rejection with respect to these claims be withdrawn and the claims allowed.

With regard to claim 10, the Examiner rejected this claim under 35 U.S.C. 103 as being unpatentable over *Fortes* in view of *Camble* in further view of *Lumelsky*. As noted above with regard to claim 1, *Fortes* at best only discloses only the concept of partition resources, and fails to disclose "allocating grid resources to the logical partition after utilization of partition resources by the logical partition reaches a first utilization threshold" as found in claim 10. Therefore, for reasons similar to those discussed above with regard to claim 1, Applicants respectfully submit that the combination of *Fortes* in view of *Camble* in further view of *Lumelsky* does not disclose all the elements of claim 10. Applicants respectfully request the rejection be withdrawn and the claim allowed.

Claims 11-13 depend from independent claim 10. As claim 10 is believed to be allowable, claims 11-13 are believed to be allowable as well. Applicants respectfully request the rejection with respect to these claims be withdrawn and the claims allowed.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

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